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10/031,426	01/18/2002	Chikara Kami	1012-02	6444

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SCHNADER HARRISON SEGAL & LEWIS, LLP  
1600 MARKET STREET  
SUITE 3600  
PHILADELPHIA, PA 19103

EXAMINER

YEE, DEBORAH

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 08/26/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/031,426

Applicant(s)

KAMI ET AL.

Examiner

Deborah Yee

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 9 to 12, 16, 19, 20 and 23 to 25 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-15, 17 and 18 is/are allowed.
- 6) ☒ Claim(s) 1 to 8, 21 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7-18-02 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1 to 8, 13 to 15, 17, 18, 21 and 22 drawn to an cold rolled steel sheet alloy composition.

Group II, claim(s) 9 to 12, drawn to a method of producing a cold-rolled steel sheet by hot rolling, colling, coiling, cold rolling and recrystallized annealing.

Group III claim(s) 16, drawn to a method of producing a cold-rolled steel sheet by recrystallized annealing cold rolling and recrystallized annealing.

Group IV, claim(s) 17 to 18, drawn to a method of producing a cold-rolled steel sheet by continuously annealing in the ferrite-austenite region, cooling at 10 to 300C/sec.

Group V, claim(s) 23 to 25, drawn to a method of box-annealing at recrystallization temperature, continuously annealing at Ac1 to Ac3 and the cooling to 500C or less at 10 to 300C/sec.

The inventions listed as Groups I to V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or

corresponding special technical features for the following reasons: Claim 1 is either obvious or anticipated by Kaneko et al (US Patent 6,425,963). Accordingly, the special technical feature linking the five inventions, a steel alloy composition, does not provide a contribution over the prior art, and no single general inventive concept exists.

Therefore, restriction is appropriate.

During a telephone conversation with Mr. Daniel Christenbury on August 13, 2003 a provisional election was made without traverse to prosecute the invention of group I, claims 1 to 8, 13 to 15, 17, 18, 21 and 22. Affirmation of this election must be made by applicant in replying to this Office action. Claims 9 to 12, 16, 19, 20, and 23 to 25 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 to 3, 5 to 8, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko et al (US Patent 6,425,963), Hashimoto et al (US Patent 4,339,284), Suemura et al (US Patent 4,348,229) or Osawa et al (US Patent 5,098,491).

Kaneko discloses steel sheet C in Table 1 of column 13 which meets the claimed composition and in Table 3 of columns 15 and 16 discloses steel sheet C having a fine grain of less than 7.8 microns and a dissolve (solute) N content of more than 0.001%. Also when calculated the N/Al is greater than 0.3 . Moreover, Kaneko teaches a ferritic microstructure wherein the secondary phase can be martensite, as evident by lines 10 to 14 of column 3 which would closely meet claims 21 and 22. Although Kaneko steel is hot rolled whereas applicant's claims a cold rolled steel , such would not be a patentable difference since process limitations are not a patentable consideration in a product -by-process claims. The burden falls to the applicant to show that any process steps associated with the claimed product result in a materially different product from those of the prior art. In regard to claim 8, Kaneko teaches paint baking which would be equivalent to a Zn-coating (galvanizing).

Moreover, the other prior art discloses specific examples which meet the claimed composition and satisfy the N/Al ratio of greater than 0.3. See Hashimoto, steel sheets B, C and D in Table 2 of column 6 and 18, 19 and 24 in Table 1(b) in Table 3; Suemura et al., steels 1 and 3 in Table 1 of column 6; and Osawa, steels 29 and 30 in Table 4 columns 9 and 10. Although the prior art does not disclose a dissolved N content of 0.001% or more as recited by the claims, such would be expected since the compositional limitations are met, and in absence of proof to the contrary.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claim 4, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

### ***Allowable Subject Matter***

Claim 4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 13 to 15, 17 and 18 are allowed.

The following is an examiner's statement of reasons for allowance: The art of record does not teach or fairly suggest the following steel alloy compositions, as claimed, containing the presence of B and Nb with equations 1 and 2, a TS x r value

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of at least 750Mpa , or a ferrite microstructure with an acicular ferrite phase at an area ratio of 5% or more.

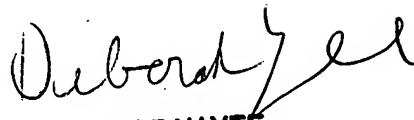
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 703-308-1102. The examiner can normally be reached on Monday-Friday from 6:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

dy

  
DEBORAH YEE  
PRIMARY EXAMINER